TOOL SUMMARY FORM (PER TOOL)

Vendor/Tool: GE	Profile edition No: Enterprise Gateway

Witnessed by

Name	Signature	Name	Signature
1. Dariusz Furga	see single forms	7.	
2. Chris Nendick	see single forms	8.	
3. Rogowski Tomasz	see single forms	9.	
4. Oana Udrea	see single forms	10.	
5.		11.	
6.		12.	

Performed tests

Test No	Score	Test No	Score	Test No	Score	Test No	Score	Test No	Score
1_2	4	13_1	4						
2_2	4	14_1	4						
3_1	4	15_1	4	27_1	4				
4_2	4	16_1	4	28					
5_2	4			29					
6_1	4			30_1	4				
7_1	4			31_1	4				
8				32_1	4				
9_1	4			33_1	4				
10_1	4								
11_1	4								
12_1	4								

Comments:

The short circuit data seems still not complete and the IEC example is not a good one for other vendors to reproduce, we would expect this data with a more realistic model like the Entso-E one.

Date	Vendor		ENTSO-E	
	Name	Signature	Name	Signature
July 15	Feng CHEN		Chavdar Ivanov	

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SINGLE TEST RECORD FORM

Test No:1_2	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	

Comments/Results/Issues:

The following items were checked:
Transformer Resistance and Reactance of TG1 of Area BE
Load data of area BE
Bus Voltage data of area BE
Tie flow data between area BE and EU

The power flow gave the same results as from the original data of the model.

During the course, the tool needs generated temporary files to merge the EQ and/or TP model of EU and BE. The supplement files are listed as below.

The ENTSOE_16_BE.zip was unzipped to get the following files and were inputted to the tool
ENTSOE_16_BE_EQ.xml
ENTSOE_16_BE_TP.xml
ENTSOE_16_BE_SV.xml

The ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip was unzipped by tool itself to get the following files in.
ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU_EQ.xml
ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU_TP.xml

Supplementary files:

Merged EQ of EU and BE: ENTSOE_16_BE_EU_eg_12J16h_EQ.xml
Merged TP of EU and BE: ENTSOE_16_BE_EU_eg_12J16h_TP.xml
Screen shot: eg_test01_solution_screen.doc

Date	Vendor		Test witness	
July 12	**Name**	**Signature**	**Name**	**Signature**
	Feng CHEN	Feng Chen	Dariusz Furga	Furga Dariusz

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Test No:2_2	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	**ENTSOE_16_BE_eg_11J11h.zip**

Comments/Results/Issues:

Cimspy was used to check all the instance counts and some instance details as below.
ACLineSegment
TopologicalNode
BaseVoltage

rdf:ID are also checked between original models and exported models for some of the elements.

ENTSOE_16_BE_eg_12J14h.zip consists of the following files
ENTSOE_16_BE_eg_12J14h_EQ.xml
ENTSOE_16_BE_eg_12J14h_TP.xml
ENTSOE_16_BE_eg_12J14h_SV.xml

Supplementary files:

ENTSOE_16_BE_eg_12J14h_EQ_CimSpy_Summary.doc
With list of object counts and ACLineSegment detail
Also check Test 1_1 eg_test01_solution_screen.doc for instance file

Date	Vendor		Test witness	
July 11	**Name**	**Signature**	**Name**	**Signature**
	Feng CHEN		Dariusz Furga	

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SINGLE TEST RECORD FORM

Test No: 3_1	Profile edition No: 2	Tool: Enterprise Gateway	Score: 4

Test files:

Import	Export
\\172.16.12.4\Public\ENTSO-E _2nd_IOP_July2011\5_Official_Test_Models\Profile_ Edition_2\ENTSO-E_16 V2\11_8July2011 ENTSOE_16_BE.zip	

Comments/Results/Issues:

We compare the voltage values and load flow results from DMS Group EKC (TNA_Loadflow_BE) with the results from GE (GE_Loadflow_BE).

The following elements were checked:

		TNA	GE	delta
Node 7:	U1 [kV]:	115.5	115.5	0.0%
(PT 1 – 7)	U7 [kV]:	11	11.02	0.1%
Node 3	P [MW]:	-104.7	-104.7	0.0%
(PPBRU220 – C4)	Q [MVar]:	34.7	34.7	0.0%

Supplementary files:
\\172.16.12.4\Public\ENTSO-E_2nd_IOP_July2011\GE\2nd_Profile\Test3.1\ eg_test03_solution_screen.doc

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
July 12	Feng CHEN	Feng Chen	Oana Udrea	Udrea

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Test No:4_2	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	**ENTSOE_16_BE_EU_eg_tpChng.zip**

Comments/Results/Issues:

The three winding transformer 3wT1's terminal that connected to Bus BRU220 is moved to ANVER220

ENTSOE_16_BE_EU_eg_tpChng.zip consists of the following file
ENTSOE_16_BE_EU_eg_tpChng_12J14h_TP.xml
ENTSOE_16_BE_EU_eg_tpChng_12J14h_SV.xml

Supplementary files:

eg_test04_solution_screen.doc
With power flow data for Load, Bus, Line and the changed Transformer

ENTSOE_16_BE_eg_12J14h_tpChng_CimSpy_Summary.doc
With list of object counts and TopologicalNode detail

Date	Vendor		Test witness	
July 12	**Name**	**Signature**	**Name**	**Signature**
	Feng CHEN		Dariusz Furga	

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Test No:5_2	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	**ENTSOE_16_BE_EU_eg_svChng.zip**

Comments/Results/Issues:

Change the Load L1 P at Bus PPBRU220 from 200MW to 250MW,
Change the Generator "Unit G1" at Bus PPBRUG21, Q from 18.8MVar to -5MVAr, P from 118.2MW to 160MW

ENTSOE_16_BE_EU_eg_svChng.zip consists of the following file
ENTSOE_16_BE_EU_eg_svChng_12J14h_SV.xml

Supplementary files:

eg_test05_solution_screen.doc
With power flow data for Load, Bus, Line and Generator

ENTSOE_16_BE_eg_12J14h_svChng_CimSpy_Summary.doc
With list of object counts and svInjection detail

Date	Vendor		Test witness	
July 11	Name	Signature	Name	Signature
	Feng CHEN		Dariusz Furga	

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Test No:6_1	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **Test4.1_2sc_TN_12J13h30.zip (from DMS)** **3. ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	

Comments/Results/Issues:

Noticed the change "Line 1" (to be offline) was imported

Inspected the snapshots of power flow solution from DMS (test no4, profile ed.2). The results converge within <2% (they matches within engineering tolerance).

Supplementary files:

eg_test06_solution_screen.doc
With power flow data for Bus, Line

Date	Vendor		Test witness	
July 13	**Name**	**Signature**	**Name**	**Signature**
	Feng CHEN	Feng Chen	Rogowski Tomasz	Rogowski T.

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Test No:7_1	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip** **3. ENTSOE_2_BE_OD_12J09h.zip (from Siemens)**	

Comments/Results/Issues:

Noticed the change of generation for "Unit G1" and load change for load "L1" was imported

Inspected the snapshots from Siemens for test 5 and they matches within engineering tolerance

Supplementary files:

eg_test07_solution_screen.doc
With power flow data for Load, Bus, Line and Generator

Date	Vendor		Test witness	
July 13	**Name**	**Signature**	**Name**	**Signature**
	Feng CHEN	Feng Chen	Dariusz Furga	Furga Dariusz

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Test No:9_1	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:4

Test files:

Import	Export
1. **ENTSOE_16_BE.zip** 2. **ENTSOE_16_NL.zip** 3. **ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip**	**ENTSOE_16_eg_test9Exp_12J9h.zip**

Comments/Results/Issues:

ENTSOE_16_eg_test9Exp_12J9h.zip contains
ENTSOE_16_BE_eg_12J9h_EQ.xml
ENTSOE_16_BE_eg_12J9h_TP.xml
ENTSOE_16_NL_eg_12J9h_EQ.xml
ENTSOE_16_NL_eg_12J9h_TP.xml
ENTSOE_16_EU_eg_12J9h_EQ.xml
ENTSOE_16_EU_eg_12J9h_TP.xml
ENTSOE_16_BE_NL_eg_11J16h_SV.xml
ENTSOE_16_BE_EU_NL_eg_tpChng_12J9h_TP.xml
ENTSOE_16_BE_EU_NL_eg_tpChng_12J9h_SV.xml

Supplementary files:

eg_test09_solution1_screen.doc
With power flow data for Load, Bus, Line and Generator before change
eg_test09_solution2_screen.doc
With power flow data for Load, Bus, Line and Generator after change

ENTSOE_16_eg_12J9h_CimSpy_Summary.doc
With list of object counts

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
July 12	Feng CHEN		Dariusz Furga	

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Test No:10_1	Profile edition No: 2nd	Tool: Enterprise Gateway	Score:

Test files:

Import	Export
1. ENTSO-E_2nd_IOP_July2011\Open Grid Systems\2nd_Profile\Test 9\ENTSOE16_OGS_13J12h.zip (FROM OGS) 2. ENTSO-E_Boundary_Set_28_June_2011_2ndEdition_EU.zip	

Comments/Results/Issues:

After merge the 2 MAS and boundary and import merged SV file, Compared results between this test and the ones from Open Grid Systems of test 9, the bus voltage, generation and load matches within engineering tolerance.

Supplementary files:

eg_test10_solution_screen.doc
With power flow data for Bus, Line and System level

Date	Vendor		Test witness	
	Name	Signature	Name	Signature
July 14	Feng CHEN		Chris Nendick	

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